

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Please amend the claims as follows:

1. (Original) Process for the preparation of an α -substituted carboxylic acid selected from the group consisting of α -hydroxycarboxylic acids and N-substituted α -aminocarboxylic acids, which comprises cathodic carboxylation with carbon dioxide at a diamond film cathode of a compound corresponding to the formula $R1-C(=X)R2$,

wherein R1 stands for an optionally substituted radical selected from the group consisting of linear, branched or cyclic alkyl, arylalkyl, aryl and heteroaryl,

R2 stands for H or a radical designated under R1,

X stands for O or N-R3

and R3 stands for a radical designated under R1, or for OH,

in a catholyte comprising a conducting salt and an organic solvent,

wherein the carboxylation is carried out in an electrolytic cell divided into a cathode chamber and an anode chamber with the use of an anode which is not soluble under electrolytic conditions.

2. (Currently Amended) Process according Claim 1, wherein an aliphatic or aromatic-aliphatic aldehyde, which may have one or more substituents which are substantially stable under electrolytic conditions, undergoes the cathodic carboxylation as the compound corresponding to the formula $R1-C(=X)R2$.

3. (Original) The process according to Claim 1 wherein said anode is a diamond film anode.

4. (Currently Amended) Process according to Claim 2, wherein the compound corresponding to the formula $R^1-C(=X)R^2$ is 3-methylmercaptopropionaldehyde (MMP) undergoes the cathodic carboxylation, wherein the dianion of 2-hydroxy-4-methylmercaptobutyric acid (MHA) (=methionine hydroxyl analogue) is formed.

5. (Currently Amended) Process according to Claim 1, wherein a diamond film electrode which is doped with one or more of the elements selected from the group consisting of boron, nitrogen, phosphorus, arsenic and antimony, is used as the cathode, wherein the anode and the cathode may be doped in a different or identical manner.

6. (Original) The process according to Claim 5 wherein said element is boron or boron and nitrogen.

7. (Currently Amended) The process according to Claim 4, wherein the an electrode which is doped with one or more of said elements is the cathode and anode.

8. (Currently Amended) Process according to Claim 1, which further comprises passing an anolyte containing a conducting salt through the anode chamber, and wherein a the catholyte containing the conducting salt is passed through the cathode chamber ~~and an anolyte is passed through the anode chamber,~~ wherein the conducting salt in the catholyte and the conducting salt in the anolyte may be ~~contain~~ identical or different ~~conducting salts~~.

9. (Original) The process according to Claim 8, wherein said salts are alkali metal salts.
10. (Original) The process according to Claim 9, wherein the alkali metal salts are selected from the group consisting of KCl, KBr, alkaline earth metal halides and quarternary ammonium salts.
11. (Currently Amended) Process according to Claim 1, wherein the conducting salt of the catholyte and/or anolyte is a tetra (C1 to C4)-alkylammonium salt wherein the anion is selected from the group consisting of tetrafluoroborate, hexafluorophosphate, trifluoromethyl sulfonate, trifluoromethyl sulfate, trifluoromethyl acetate and perchlorate.
12. (Currently Amended) Process according to Claim 1, wherein the solvent for the catholyte is one or more aprotic dipolar solvents.
13. (Currently Amended) The process according to Claim 12, wherein the aprotic dipolar solvents are selected from the group consisting of ~~dialkylamides~~ dialkylamides, N-alkyl lactams, nitrites, ethers, sulfoxides, gamma-butyrolactone, and alcohols.
14. (Currently Amended) Process according to Claim 1, wherein a ~~divided~~ the electrolytic cell ~~having~~ has an ion exchange membrane is used as ~~the~~ a separating element.
15. (Original) The process according to Claim 14, wherein the ion exchange membrane is a cation exchange membrane, a clay membrane or a glass membrane.

16. (Currently Amended) Process according to Claim 1, wherein the cathodic carboxylation is carried out at a pressure within the range atmospheric pressure to 5 bar, wherein the CO_2 carbon dioxide partial pressure is within the range 0.1 to 5 bar.

17. (Currently Amended) Process according to Claim 1, wherein the cathodic carboxylation is carried out ~~with the use of a divided~~ in the electrolytic cell ~~having wherein the diamond film cathode and the anode are~~ plane-parallel electrodes.

18. (Currently Amended) Process according to Claim 1, wherein the cathodic carboxylation is carried out in ~~potentiostatic~~ potentiostatic manner at a voltage within the range 3 to 30 V, or in galvanostatic manner at a current density within the range 0.1 to 10 A/dm².

19. (Original) The process according to Claim 18, wherein the voltage is from 5 to 20 V and the current density is from 0.2 to 2 A/dm².

20. (Currently Amended) Process according to Claim 1, wherein the α -hydroxycarboxylic acid or N-substituted α -aminocarboxylic acid is obtained from the catholyte, by precipitation of ~~the a salt form the~~ formed from a substituted carboxylic acid anion with a cation which is contained in the ~~electrolyte electrolytic cell~~, by the addition of a substantially nonpolar solvent, and acidulation of ~~the a salt which has been separated from the an~~ organic phase.